Newsletter of the North American Mycological Association

THE MYCOPHILE

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The 2014 Patrice Benson Memorial NAMA Foray
Eatonville, Washington
October 9-12, 2014

It's the moment you've all been waiting for—registration time for the 2014 NAMA Foray! Registration will open **Monday, May 12 at 9 a.m. Pacific time.** Foray attendees and staff will be limited to 250 people, so be sure to register early to get your preferred choice of lodging and to reserve your spot in a pre-foray workshop.

Registration will be handled online through the PSMS registration system at www.psms.org/nama2014. If you are unable to complete registration online and need a printed form, contact Pacita Roberts immediately at (206) 498-0922 or mail to: namaregistrar@psms.org.

The foray begins Thursday evening, Oct. 9, with dinner and speakers, and ends on Sunday morning, Oct. 12, after the mushroom collection walk-through. The basic package includes 3 nights and 8 meals. The package including a pre-foray workshop or the trustees meeting starts 2 days earlier on Tuesday night, Oct. 7, and includes 5 nights and 14 meals. The actual workshops and trustees meeting occur on Wednesday, Oct. 8.

Speakers

Dr. Steve Trudell will serve as the foray mycologist, and he, along with program chair Milton Tam, have arranged an amazing lineup of presenters for 2014. Although the list is not quite finalized, this stellar cast of faculty has already committed: Alissa Allen, Dr. Denis Benjamin, Dr. Michael Beug, Dr. Tom Bruns, Dr. Cathy Cripps, Dr. Jim Ginns, Dr. Bryce Kendrick, Paul Kroeger, Sava Krstic, Dr. Pat Leacock, Dr. Brandon Matheny, Danny Miller, Drew Parker, Dr. Fred Rhoades, Dr. Christine Roberts, Christian Schwarz, Noah Siegel, Dr. Suzanne Simard, Dr. Ann Simpson, Dr. Rob Simpson, Paul Stamets, Dr. Jim Trappe, Dr. Else Vellinga, Sasha Viazmensky, Dr. Rytas Vilgalys, and Dr. Tom Volk.

In addition, a number of current graduate students will deliver presentations in a student research forum. The students include Joshua Birkebak, Vince Hustad, Brian Looney, Marisol Sanchez-Garcia, and Valerie Wong.

(Continued on p. 3)

FORAYS & OTHER EVENTS

This section of ***The Mycophile*** is reserved for publicizing the annual forays of NAMA affiliated clubs and other events you may be interested in learning about. If you would like us to list your club's next big event, contact us with details you would like displayed here and send to the editor dianna.smith@comcast.net.
See also http:/namyco.org/events/index.html.

May 9-11: The **Oregon Mycological Society** (OMS) will be hosting its **Spring Mycology Camp** at Suttle Lake, Oregon. For more information see www.wildmushrooms.org.

July 11-13: Gulf States Mycological Society Summer Foray in Wiggins, Mississippi with lodging at the Hampton Inn & Suites. Invited mycologists include Dr. Bart Buyck, his colleague Dr. Valerie Hofstetter and graduate student Brian Looney of the University of Tennessee. Cost is $269/single and $344/dbl. Details and registration form will be posted at http://gsmyco.org or contact dandplewis(@) gmail.com.

July 25-26: West Virginia Mycological Club Foray with Alissa Allen, Gary Lincoff, Donna Mitchell, Bill Roody, Noah Siegel, Walt Sturgeon, Kyle Weaner. Visit wvmushroomclub.org for details and registration form.

August 7-10: **2014 NEMF Samuel Ristich Foray** at Bowdoin College, Maine. Dr. Seanna Annis, mycologist and plant pathologist at the University of Maine at Orono, will be the host mycologist. Presenters will include Renée Lebeuf, Raymond Archambeault, Greg Marley and Michaeline Mulvey. See www.nemf.org/foraynext.htm.

September 4-7: COMA's annual **Clark Rogerson Foray** will be held at Berkshire Hills Emmanuel Camp in Copake, NY and is easily accessible from NYC, the Hudson Valley, Connecticut and Western Massachusetts. See www.comafungi.org/special-events for information on registration.

September 11-14: **Wildacres Foray** in North Carolina. (See page 5 in ***The Mycophile*** for further information).

October 9-12: **NAMA's 2014 Patrice Benson Memorial Foray** at Camp Arnold (http://www.tsacamparnold.org/) in Eatonville, Washington. See www.psms.org/nama2014

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(NAMA 2014 Foray continued from p. 1)

Mushroom and Lichen Dyes for Wool and Silk

with Alissa Allen of Mycopigments and featuring special guest Liann Finnerty

Over 25 wool and silk samples will be dyed in this workshop using fungi and lichens found from all corners of North America. Participants will learn which mushrooms and lichens can be used for their pigments and the best extraction methods for their optimal color range. Textile designer Liann Finnerty will show how to transform mushroom-dyed silk scarves into works of art. Everyone will practice the design techniques to create their own beautiful, commemorative silk scarves. Cost is $70, and registration is limited to 20 participants.

Mushroom Watercolor Painting

with Alexander (Sasha) Viazmensky

Learn the secrets of mushroom portraiture from master watercolor artist Sasha Viazmensky. The class requires high quality paints, brushes and paper, which can be preordered for an additional $60. This kit includes Russian watercolor paints preferred by the instructor. Cost is $80 for the workshop, and registration is limited to 12 participants.

Foray Pricing

Lodging

The Salvation Army Camp Arnold
33712 Webster Rd. E
Eatonville, WA 98328

Camp Arnold is nestled at the base of the foothills of Mount Rainier on 600 acres of beautiful forested land, conveniently located an hour drive from Seattle-Tacoma International Airport.

Please be aware that Camp Arnold is an alcohol and drug-free facility, and smoking is only allowed in a designated area. No pets or firearms are allowed.

Lodging includes bedding and towels.

Lodging Options

Standard (Guest Lodging)

Home-style lodging, with double or twin beds with shared bathrooms and sitting area
$180 for foray (3 nights/8 meals); $280 for foray + trustees meeting or workshop (5 nights/14 meals)

Firgrove Cabins

Dormitory style, 7 lower bunks per floor, with shower & restroom on the same floor
$160 for foray (3 nights/8 meals); $250 for foray + trustees meeting or workshop (5 nights/14 meals)

A-frame Cabins

Dormitory style, 9 lower bunks per cabin, with separate shower and restroom facilities for every 3 cabins
$140 for foray (3 nights/8 meals); $220 for foray + trustees meeting or workshop (5 nights/14 meals)

RV Camp

Hookups for water and power (some are available with sewer hookup)
$130 for foray (3 nights/8 meals); $210 for foray + trustees meeting or workshop (5 nights/14 meals)

Meal plan only (No lodging)

Attendees must register for a meal plan if not staying at Camp Arnold
$110 for foray (3 nights/8 meals); $185 for foray + trustees meeting or workshop (5 nights/14 meals)

Registration fee
The registration fee for the foray (Oct. 9-12) or the foray + trustees meeting or workshop (Oct. 7-12) is $120, and is non-refundable. There will be no refunds on any other fees after August 15, 2014. Any registrations after August 15, 2014, will be charged a $50 late fee.

Pre-foray workshops
Mushroom and Lichen Dyes for Wool and Silk: $70
Mushroom Watercolor Painting: $80
Watercolor kit preferred by instructor: $60

To register, visit www.psms.org/nama2014 starting at 9 a.m (*Pacific time)* on Monday, May 12 and click on the "Register now" button. If you are unable to complete registration on-line and need a printed form, contact Pacita Roberts immediately.

Pacita Roberts, Registrar
206-498-0922
namaregistrar@psms.org

Foray T-shirt
Pre-order a black, long-sleeve T-shirt with the foray logo when you register. Pricing can be found on the registration form. Only a limited few will be available for purchase at the foray.

The Harry and Elsie Knighton Service Award

The Harry and Elsie Knighton Service Award was established by the NAMA Board of Trustees to recognize and encourage persons who have distinguished themselves in service to their local clubs. It is named for the Knightons, whose efforts began the North American Mycological Association in 1967.

The annual award consists of a plaque; publicity for the winner and club in The Mycophile; a one-year membership in NAMA; and registration, housing and foray fees for the next NAMA Foray.

Each year's recipient is selected by the three most recent recipients of the Award.
Every NAMA-affiliated mycological club may nominate one candidate whom it feels has performed meritorious service during the current or preceding year, which has to be described!
Unselected nominees are automatically re-nominated for two additional years.
Nominations are accepted until **July 1st** of this year.
Send a single copy of a nomination by mail or email to:

Gary Lincoff
The New York Botanical Garden
Chair, NAMA Awards Committee
2900 Southern Boulevard
Bronx, NY 10458-5126
Email: garylincoff@earthlink.net

Wildacres 2014

The Wildacres 2014 Foray is scheduled for September 11-14, 2014. This foray is held at the Wildacres retreat center located just off the Blue Ridge Parkway near Little Switzerland, not tooed far from Spruce Pine, North Carolina. Mycologists this year are Brandon Matheny from the University of Tennessee, and Coleman McCleneghan from Boone, North Carolina and the Department of Biology at Appalachian State University. We are very thankful to have these two knowledgeable southern mycologists join us for this foray. Wildacres is renowned for the identification of new species to the foray and to the identification of new species to the mushroom kingdom. You will have the opportunity to search for fungi along the creek sides of Armstrong Creek and Crab Tree Falls, in the highlands of Mount Mitchell, and in many other areas along the beautiful Blue Ridge Parkway. This intimate gathering is sought after by professional and amateur mycologists from across the country. Please register soon as this foray is a sell out each year. Please contact Glenda O'Neal, (423) 246-1882 for more information. Registration fee for this foray is $235 per person and includes three nights lodging and eight meals-double occupancy.

Editor's Corrections: In the March-April issue of ***The Mycophile*** there are errors in the text associated with David Fischer's photo of *Sarcoscypha* sp., for the 'Mushroom of the Issue.' The text should read as follows: Photo by David Fischer, co-author of *Edible Wild Mushrooms of North America* and *Mushrooms of Northeastern North America.* His website is www.americanmushrooms.com.

2013 NAMA ANNUAL PHOTOGRAPHY CONTEST WINNERS
Judges' Option Category

First Place: Dianna Smith
Second Place: John Stuart
Third Place: Alan McClelland
Honorable Mention: Daniel Winkler

First Place Photo by Dianna Smith:
Russula variata schnoz

Second Place photo by John Stuart:
Mushroom Lies

Third Place Photo by Alan McClelland: *Morel*

Honorable Mention Photo by Daniel Winkler:
Caterpillar Fungus Dealer with two thousand dollars worth of product!

2014 NAMA Digital Photo Contest

by John Plischke III

http://namyco.org/photography/contest_rules.html

The photo contest is open to all mushroomers. NAMA membership is not required to enter it. Images that have previously won (including honorable mention) are not eligible. Closing date: **All entries must be received by the Contest Director, John Plischke III, on or before August 4, 2014**. Allow at least one week for mailing. Up to 15 images may be entered per person with a maximum of 6 in the Pictorial, 6 in the Documentary and 3 in the Judges Option to make a total of up to 15 images.

There are 3 Entry categories

Pictorial: This division is for single photos that illustrate the beauty and variety of fungi in form and color. Mushrooms should not be cut or turned over. They should look natural in their habitat. Judging criteria include consideration of both technical (focus, depth of field, exposure, lighting, color, absence of distracting elements) and artistic (composition, color, background, lighting) aspects.

Documentary: For single photographs especially suited as illustrations in a field guide, monograph, or for use in a lecture. Emphasis is placed on portrayal of key morphological characteristics so that the usefulness of the image as an identification aid is maximized. Subjects may be shot in the field, laboratory or studio and the photographer has complete freedom to cut, process, manipulate, or orient the specimen in any desired manner to achieve the goal. Close-ups of single features and photo-micrographs are acceptable. Judging criteria will be the same as in the Pictorial category, but they will be of secondary importance to the overall mycological utility of the photo. Accurate identification of the subject will be a consideration.

Judge's Option: This is for single photos or series which do not fit into the Pictorial and Documentary divisions. Examples include time-lapse series, ecological relationships of fungi (e.g. fairy rings), fungi with animals, people enjoying fungi, humor, etc.

Awards: Prizes will be awarded to 1st through 3rd place winners. Honorable Mentions will also be noted for some Pictorial and Documentary photos.

Marking, Listing and Submitting Digitals: The digital photos' file names should include 3 things, **D** (for Documentary) **JO** (for Judges Option) or **P** (for Pictorial), and your initials, followed by the Genus and species of the fungi or the title for the Judges Option photo. Digital images may be emailed or mailed on a CD or DVD and will not be returned. Mail images to John Plischke III, 411 Center Avenue, Greensburg, PA 15601 724-832-0271 or to Fungi01@aol.com. If emailing in images please include your name, address and phone number. Images can also be submitted using free file mailing programs such as http://www.mailbigfile.com/ or Dropbox, etc.

Reproduction: Entry in the contest constitutes the consent of the photographer to allow NAMA to reproduce copies of each winning image (including Honorable mention etc.) for circulation or use by NAMA Committees, among the membership, NAMA brochures, signs, advertising and affiliated societies. NAMA also reserves the right to post images of the winning images on the NAMA web pages and in ***The Mycophile*** and to be used by the marketing committee. All copyrights remain with the photographer.

NEW

If possible please include a photo of yourself, so we can use it to introduce the photographers. This is not a requirement and the photo of yourself is not counted as an entry. It has also been requested that we start to collect data on where the mushroom photo was taken. We don't need GPS coordinates, but it would be helpful to have a city/county/park/state names to post on the website for future reference.

THE TIES THAT BIND US—the sequel

by Andrus Voitk with major help from Zoe Chatzidakis, Greg Thorn, Dmitry Sveshnikov and Henry Mann

(This play was originally published in ***OMPHALINA****, newsletter of Foray Newfoundland and Labrador, Vol. IV No 6, Jul. 14, 2013).*

This one act, one scene play is the long-awaited sequel to the terse and exciting drama, where Moose, Vixen and Crow first made some observations on mycorrhizal restrictions placed on orchids (see ***OMPHALINA*** 2 (2):14-19.2011).

CHARACTERS: Crow—a wise old crow, Vixen—a sharp young lady fox, and Moose—a dull-but trying old bull moose.
THE SCENE: Fen, bordered by mixed forest. Bushy black ash (*Fraxinus nigra*), surrounded by showy lady's slippers (*Cypripedium reginae*). Vixen approaches browsing Moose.

VIXEN: Hey, Moose, have you heard? Remember when we were tromping this fen back in the fall of 2010?

MOOSE: You mean when Crow told us all about them ties that bind us? Or bind lady's slippers, at least. He called them miker-something.

VIXEN: Mycorrhizal. Yes, that's the time I meant.

MOOSE: Myco-whatever. But what of it?

VIXEN: Well, looks like some scientist got wind of our discussions and pooh-poohed Crow's explanation.

MOOSE: Whaddayamean?

VIXEN: Well, remember how we noted that lady's slippers grew around some trees and not others?

MOOSE: Yeah, there was a whole bunch around that black ash over there, I seenem there every year, but none around them maples. Never seenem there.

VIXEN: Exactly. And remember how Crow explained the reason for that?

MOOSE: Yeah, that was cool. He said that orchid seeds are so small that they have no food of their own, and need a mushroom to feed them, if they are to grow. And apparent-those mushrooms, in turn, need a tree to feed them.

VIXEN: Exactly. Some fungi give tree roots water and minerals in exchange for sugars. But different fungi match up with different trees for these mycorrhizal associations.

MOOSE: Yes, and Crow said that wherever those mushrooms grow, they help orchid seeds grow. So, he explained that maple trees do not form them myk-whatever relations with the required fungus, but ash trees do. That's why, when seeds tumble all over the fen here, they die out around the maples, but grow around the ash, which has their required mushrooms attached to their roots. So what's the big deal with that scientist fellow? Crow's explanation cannot be right.

MOOSE: Wow! Who was that smart scientist?

VIXEN: Greg Thorn.
Pause.
Flap, flap, flap, flap.

VIXEN: Oh, hello, Crow, didn't see you coming, there.

MOOSE: You mean that nice Greg Thorn from London, Ontario, who comes to our forays every year? I seenim in the woods many times at foray time. He didn't look to me like a guy who wants to pick a fight.

VIXEN: Exactly what I thought. Guess you can never tell by looking. Here comes Crow now. He's probably feeling bad because his theory was trashed, so don't say anything to him, OK?

MOOSE: Oh, OK. I won't say nuthin. My lips are sealed. Mum's the word.

MOOSE: Yeah, didn't see you coming at all, at all. Had no idea you was in the neighbourhood. An we wasn't talking bout nuthin anyways, honest. Specially not about that myko-whatever thing with the ash that you didn't get right.

Cypripedium reginae, the showy Lady's Slipper, proudly displaying the red and white of the Canadian flag, photographed near Humber Village, NL, on Canada Day, 2013.

CROW: Why, hello, Vixen, hello, Moose. Am I glad to see you! I was just hoping to tell you the latest about the lady's slippers.

MOOSE: What lady's slippers? We don't know nothing about them lady's slippers that Greg Thorn wanted to pick a fight with you about. Oops, sorry, I didn't mean…

CROW: That's OK, Moose, you meant well. But Greg wasn't picking a fight.

VIXEN: But I heard that he wrote that your theory was full of hot air.

CROW: That he did. Scientists accept or reject theories on the basis of evidence. There is nothing personal involved. If somebody proposes something that does not fit with known facts, as apparently I did, it is the job of a scientist who knows to question it. To question a theory is not to attack its author.

VIXEN: So, is he saying that lady's slippers don't grow around the black ash? That's not right, because we know they do.

MOOSE: Yeah, like I said earlier, back when we wasn't talkin bout nothin, there was a whole bunch of lady's slip-

pers around the ash over there, I seenem there every year, but none around them maples. Never seenem there. So, how can that Greg say that's not true?

CROW: No, Moose, Greg was not saying our observation was wrong. Of course not. Science deals with facts, and a valid observation is a fact. What he did, was to question the explanation. If orchid seeds need a fungus to feed them in order to grow, and if the fungus needs a suitable tree, then it is reasonable to expect that trees that do not form relationships with fungi, like the maple, will not have orchids around them. However, apparently ash also does not form mycorrhizal relations with fungi. That puts into question the explanation that I offered, not knowing this about ash.

VIXEN: But if the orchid needs the fungus to grow, then there must be a fungus there that feeds the orchid. And if the fungus, in turn, needs a plant to grow, it must have a partner there. Since there is no other major plant partner there, this fungus must have a relationship with the ash.

CROW: Very good, Vixen! If orchids can't grow alone and fungi can't grow alone, there must be a relationship with the ash. And so there is.

MOOSE: Whaddaya mean, there is? I thought you just told us that Greg said there wasn't. What's the story?

CROW: Well, when Greg wrote in to ***OMPHALINA***, the Editor told him that the onus was on him to supply a better explanation.

VIXEN: Wow, threw it back to Greg. What happened?

CROW: Greg accepted the gauntlet. He said to send roots of the orchid and ash to him, and he'd see if they had fungi common to both, fungi that might get sugars from the ash, while feeding the orchid.

VIXEN: So he was looking for the ties that bound the two, ties that weren't supposed to be there? What happened?

CROW: Well, Greg told the story to one of his students, Zoe Chatzidakis, and said, "Here are the roots. You figure it out, and I'll pass you."

MOOSE: Gwan, bye, he never!

CROW: He did. As a result, Zoe got a great opportunity to work out a question in a scientific way. She learned a lot and got to do some pretty fancy detective work while at it. That's why I came to tell you the news.

VIXEN: You mean, you have heard the results of Greg's research?

MOOSE: Zoe's, you mean.

CROW: Oh, Moose! Yes, I just heard from Blue Jay, whose cousin heard it presented at the Great Lakes Mycology Meeting in Ontario. Apparently our Editor invited Henry Mann and Dmitry Sveshnikov to come and dig up lady's slipper and ash roots in the rain and then had Dmitry ship them to Greg. Greg had Zoe do the investigation. And guess what she found?

MOOSE: Whaddaya mean, "Guess what she found?" You coulda told us right at the start and spared coupla pages of useless dialogue!

VIXEN: Simmer down, Moose. They gotta fill the pages of ***OMPHALINA*** with something—might as well be our talk. But please, Crow, tell us what Zoe found out.

CROW: Well, turns out there were indeed some fungi on the black ash roots that were also found on the lady's slipper roots. They were from the genus *Glomus*. Only one was identified to species, *Glomus claroideum*. So, it seems that *Glomus claroideum* and other *Glomus* species have a relationship with ash and are also able to form a relationship with showy lady's slipper seeds, presumably nurturing them during development. This is why tiny orchid seeds around ash can develop into plants.

VIXEN: But I thought you said, or Greg said, that ash does not form mycorrhizal relationships.

CROW: True. However, there are several types of mycorrhizal relationships. The type we most commonly speak of is the ectomycorrhizal relationship. Ecto means outside because in this association, the fungal tissue is wrapped outside the root hairs like a sheath, and small fibers go in but stay outside the root cells. Even commoner is the endomycorrhizal or arbuscular mycorrhizal relationship. Endo means inside and here the fungal mycelia enter the root and send out small fibers that actually penetrate the cell walls of the root tissue.

VIXEN: Are you saying that when you said ash is tied to orchid, you should have said via an endomycorrhizal association, while when Greg said ash does not make mycorrhiza, he meant ectomycorrhiza?

CROW: Right on the money, Vixen. When I explained it, I didn't know ash didn't make ectomycorrhizal associations. But what you say is true. *Glomus* seems to be tied to ash and lady's slipper by endomycorrhizal associations.

MOOSE: I find this endo-ecto mumbo-jumbo confusing. If this endo-myco-whatever works, why don't we see lady's slippers around maple?

VIXEN: I know! I know! At least, I think I know. Maybe *Glomus* can form an endomycorrhizal association with ash, but not with maple. Maple may have other endomycorrhizal fungi, but perhaps these are unable to hook up with lady's slippers. Is that it?

CROW: Maples have been shown to have endomycorrhizal relations with *Glomus*, so the explanation must be more complicated—lots for Zoe to work on. Hope we can get her back to work it out. In any case, I think it is the first time anybody has shown this type of relationship with these two plants, tied by this group of fungi through an endomycorrhizal relationship.

MOOSE: Wow! So you say that thanks to our little powwow a few years back, something totally new has been discovered, something nobody knew before?

CROW: Yes, before this nobody knew this. Science is very democratic this way. You don't have to be a famous professor to see things. Anybody can make an observation, form a theory and test it. However, just to be very precise: we didn't discover it. We made the observation, but the discovery was made by Zoe and Greg. And made because my explanation didn't hold water. This'll be formally reported by them. Meanwhile we can publish this transcript of our idle chatter without incurring problems with prior publication for them. And yet, the good readers of ***OMPHALINA*** get it first.

MOOSE: I've always said it. That Greg is one very fine fellow! Wait till I go tell the missus!
They scatter.
Tromp, tromp, pad, pad, flap, flap.

Inocybe unicolor Photo by Brandon Matheny

INOCYBE UNICOLOR

Editor: The response to Joel Horman's interview in the previous March-April issue of The Mycophile with Brandon Matheny was tremendous. As promised, here is Brandon's complete description of *Inocybe unicolor.*

Inocybe unicolor Peck, Ann. Rep. N.Y. State Mus. 50: 104. 1897 (basionym).
Inocybe lorillardiana Murrill, Mycologia 3: 101. 1911.
Inocybe marmoripes Atk., Amer. J. Bot. 5: 213. 1918.

Pileus 1.5-5.0 cm diam, deeply convex when young to obtusely conical or parabolic to conical, becoming subcampanulate; umbo sometimes present in age but obtuse; margin incurved to decurved; surface dry, granulose due to very fine recurved or appressed squamules (resembling *Cystoderma*), at times with velvety appearance, margin entire; the scales dark yellowish brown or strong brown ("Cinnamon Brown") at the center (10YR 4/4 to 7.5YR 4/4) against a yellowish brown or fulvous ground color (10YR 5/6-5/8 or "Buckthorn Brown"), occasionally faded to light yellowish brown; dark brown with 3% KOH, neg. guaiac; context up to 3 mm thick, pallid, not confluent with stipe; odor and taste not remarkable. **Lamellae** narrowly adnate to uncinate, moderately close, 24-30 L, with several tiers of lamellulae; cream colored or pale yellow when young (2.5 Y7/4), becoming light olive brown or isabelline (2.5Y 5/4), to dark yellowish brown (10YR 4/4) with olive tinge or olive brown (2.5Y 4/4); even to subventricose, up to 6 mm broad; edges pallid, fimbriate. **Stipe** 3.0-5.0 cm X 2-7 mm, usually longer then pileus diameter, terete to compressed, mostly even, occasionally slightly swollen or tapered at the base; cortina yellowish brown, fugacious; densely fibrillose when very young but soon breaking up into yellowish brown or cinnamon brown squamules, at times recurved, against a pale yellowish brown ground color in contrast to the darker scales; apex of stipe finely-fibrillose, not pruinose; context solid becoming hollow with tough cortex, dingy pallid or with slight yellowish tinge, unchanging where bruised or exposed.
Basidiospores (8.5-) 9.0-9.9-11.5 (-12.0) X (4.0-) 4.5-5.0-5.5 (-6.0) µm; Q=1.64-1.97- 2.33 (-2.44) (n=72/4), smooth, oblong-elliptic to oblong-subamygdaliform or oblongsubphaseoliform or with ventral depression, occasionally "laceroid", apices obtuse to bluntly pointed; thick walled to slightly thick-walled, "Ochraceous-Buff" or brownish yellow; apiculus small and indistinct. **Basidia** 28-38 X 7-10 µm (n=21/4), 4-sterigmate, clavate, hyaline to necropigmented. **Pleurocystidia** none. **Cheilocystidia** 32-65 X 9-13 µm (n=23/3), irregularly cylindric, at times strangulated, or fusiform, narrowly utriform, to lageniform; apices often swollen to indistinctly subcapitate; thin-walled, hyaline; edges of lamellae sterile. **Caulocystidia** not observed; superficial hyphae on stipe forming a trichoderm or interwoven layer of cylindric hyphae, "Ochraceous-Tawny" in mass; end cells often not differentiated or at times flexuous or lageniform, 4-10 µm diam; subtending hyphae cylindric to inflated, up to 18 diam, thin- to slightly thick-walled, incrusted; tramal hyphae pale yellow brown to hyaline in mass, up to 14 µm diam, walls appear smooth. **Lamellar trama** parallel, pale yellowish brown to hyaline in mass, hyphae cylindric, up to 12 µm diam; rusty colored refractive hyphae present. **Pileipellis** a cutis giving rise to fascicles of trichodermial elements, "Ochraceous-Tawny" in mass, hyphae cylindric to inflated, up to 18 µm diam, incrusted, walls slightly thickwalled; hyphae of subpellis up to 25 µm diam; tramal hyphae pale yellowish brown in mass, up to 18 µm diam, septa frequent, thin-walled. **Clamps** present. Scattered to gregarious, singly or

in small groups, on calcareous soil under *Quercus* (Fagaceae), *Carya*, and *Juglans* (Juglandaceae), generally in Oak-Hickory forests, eastern North America—Missouri to New York and North Carolina, June to September.

Commentary: *Inocybe unicolor* represents a widespread North American species apparently endemic to eastern forests contaaining oak and hickory. The distinguishing characters include the granulose/quamulose covering to the pileus and the distinctly scaly stipe composed of darker scales against the pale yellowish brown ground color. Microscopically, *M. unicolor* exhibits long cylindric to subfusiform cheilocystidia, often greater than 50 µm in length and oblong spores with Q-values ranging between 1.90 and 2.25 on average. In North America this is the only known species strictly associated with Fagaceae or Juglandaceae on calcareous soils. It is therefore not surprising that this outstanding fungus has been described in North America by no less than three workers. *Inocybe lorillardiana* and *I. marmoripes* are both considered synonyms. Under incandescent light the scales of *M. unicolor* could be interpreted as "ferrugineous" as described by Murrill for *Inocybe lorillardiana*. Bessette & Fatto (1998) present a thorough study of the holotype of *I. marmoripes* consistent with my evaluation of the isotype at WTU. The spore dimensions of *I. marmoripes* fall within range of collections studied from New York, Virginia, and Missouri, although the mean Q-value (2.25) is longer than that of other New York and Missouri material (1.86-1.89) but similar to Virginia material (2.12). Interestingly, RPB2 and nLSU DNA sequence data detect several nucleotide differences between Virginia and North Carolina collections on one hand, and New York and Missouri material on the other. Additional sequence comparisons are necessary to see if a correlation persists among shorter-spored and longer-spored groups. Kauffman (1924) reported *I. marmoripes* from Maryland and Washington, however, his description of the cheilocystidia (as clavate) is not in concordance with the type. It may well be that Kauffman's concept of *I. marmoripes* was a broad one including *I. malenconi* and/or *I. tanyosporota*. Stuntz (1940) misapplied the name *I. marmoripes* to *M. malenconi*.

SPECIAL NAMA ANNOUNCEMENTS

The North American Mycological Association **(NAMA) is seeking an editor for *McIlvainea: Journal of American Amateur Mycology*.** Contact Michael W. Beug, acting Editor 2008-2013 for details.

Volume 23 of ***McIllvainea*** will be available in May, 2014.

!NAMA Mycological Communication Contest!

Deadline January 15 of each year

NAMA is seeking ways to encourage and assist students in their development as mycologists by providing writing and public speaking opportunities. To that end, **NAMA has initiated an annual mycological communication contest for students K-12 through Post Doc.**

Effective communication with the lay public about scientific discoveries and observations will help engender public interest in and support for both basic science and for the environment where we conduct our research. To encourage communication by students doing mycological research, NAMA is soliciting student research papers for publication in ***McIlvainea: Journal of American Amateur Mycology***. All students who submit a paper will receive a one-year membership in NAMA. A $250 prize will be awarded to the author of the best paper in each of four categories: 1) best paper by a K-12 student; 2) best undergraduate paper; 3) best graduate/post doctoral paper and 4) judges option award (any category). In addition, the winners will be invited to attend the NAMA Annual Meeting/Foray and present their work at a student mycological colloquium. Winners who choose to attend the NAMA foray will each receive a $500 stipend to help cover registration, travel, meals and lodging.

In the event that no entries are received in a given category, the judges may make an additional judges option award. Entries must be submitted to Michael W. Beug, Editor, *McIlvainea* beugm@evergreen.edu.

THE CASE OF THE DEAD MAN'S FINGERS

A Mycological Mystery Story by Lawrence Millman

Sherlock Holmes was identifying some of the mushrooms in his friend Dr. Watson's basket. "Ah, here's a *Leucogyrophana mollusca*," he observed.

"How do you know?" asked Watson. After all, he was little more than a weekend pothunter, while Holmes was an accomplished mycologist.

"Elementary, my dear Watson. It has a resupinate, slightly effused, easily separable and merulioid sporocarp. What's more, it's got a whitish margin and...hullo, what's this?"

Holmes removed several blackish elongated entities from Watson's basket.

"Dead Man's Fingers, of course," declared Watson triumphantly. He wanted his friend to know that he wasn't a complete idiot when it came to making mushroom identifications.

"Can you take me to the spot where you collected them?" Holmes said with a certain urgency.

Watson nodded. It was a drizzly October day, with mud-colored clouds in the sky and the maples already a gauche shade of red. The two men entered the woods, and at last came to a hemlock grove.

Holmes peered down at the dead man, who was missing several of his fingers. "Really, Watson," he said. "Don't you ever consider the substrate when you're collecting fungi? Here you're exhibiting a species of myopia such as I've seldom seen before."

"A species of Myopia? Is it edible?"

Holmes, who was examining the body and the basket next to it, ignored his friend's question. After a while, he declared: "Murder."

"You're sure?" asked Watson. He would have guessed suicide, as there were only Russulas in the dead man's basket.

"Smell the basket."

Watson sniffed at the basket. "It smells like old gym socks."

"Exactly...and that smell will lead us to the murderer."

"The murderer is an old gym teacher?" On Watson's face was a look of complete bafflement.

Holmes shook his head. "The basket would have been full of matsutakes, the only mushroom in the world with that smell. And unless I'm greatly mistaken, the murderer is my old colleague Dr. Moriarty."

After they left the woods, Holmes got out his smartphone and made a call, then they drove to the local university -- specifically, to the building that housed the Department of Organismic Biology. Down a long hallway they walked, until they were standing in front of Professor Moriarty's office.

"Moriarty has been sequencing *Tricholoma magnivelare*, aka matsutake, which he believes is thirty or forty

different species, all related to the crust fungus *Laxitextum*," stated Holmes. "The problem is, he never can get enough specimens, since there are so many pothunters scouring the woods. So he's now gone to an extreme that I hardly would have expected of him..."

All at once the door opened, and there was Professor Moriarty, his bespectacled face peering out from a mat of graying hair. "This is a surprise, Holmes," he said. "I thought your revision of the genus *Fibricium* in the most recent *Mycotaxon* was splendidly done."

"And your paper on endophyte-host associations in Flushing Meadows in *Mycologia* had me on the edge of my seat. But that's not why I've come here. I'm afraid the jig is up, Moriarty."

"What jig...what do you mean?"

"You know very well what I mean. You did away with that poor mushroom hunter so you could steal his specimens and sequence them."

Just as Moriarty was reaching for his revolver, several policemen rushed into the room and after a brief scuffle, handcuffed him. "Thanks for the tip, Holmes," one of the policemen said. "We can always count on you for help with mycology-related crimes."

Moriarty himself did not seem too pleased with the situation. "But my work is being sponsored by the NSF," he protested.

"Tell it to the judge, fella," another policeman remarked.

After Moriarty had been escorted to the waiting van, Holmes turned to Watson. "So let's see what else is in your collection basket, old chap," he said.

From ***Giant Polypores & Stoned Reindeer: Rambles in Kingdom Fungi***. The book is available for $20 postpaid from the author at P.O. Box 381582, Cambridge, MA 02238

Woolly Inky Cap (*Coprinopsis lagopus*)

by Ken Dies of the Alberta Mycological Society's Winter 2014 newsletter, ***Spore Print***

One of my favorite urban mushrooms, *Coprinopsis lagopus*, usually occurs in small groups in soil, sawdust, wood chips or lawns in parks and settled areas. However, it is equally at home along trails and clearings in deep forests. This dainty mushroom is part of a complex group of similar inky caps and, for the amateur mycologist, a group too mind-boggling to even try to differentiate. All emerge as a cylindrical mass resembling a bottle brush with extremely fine bristles. As it matures the fragile hollow white stalk is covered with minute white hairs. The cap is gray to bluish-gray and is covered with coarse white fibrils, remnants of the universal veil tissue. This cap normally splits and curls up and back before deliquescing in wet weather or just drying up. This fragile mushroom is likely more common than generally observed, as its lifespan is extremely short, usually lasting not more than a few hours. I have yet to see one last a full day. Keep your eye open for this handsome little mushroom.

Additions to Recommended Reference Books and Books for Young People in the Education Section of the NAMA Website

Many new books have been added to the Recommended Reference Books on the NAMA Education website. All four of the sections in the booklist contain additional books. One new book has been added to the North American section. The books added to the Regional section should aid you in identifying fungi in the areas in which you collect, including some parts of Canada. The Specialized section has added books on groups of fungi such as morels and tricholomas. The Miscellaneous section has a mix of new books from serious and informative reference books to entertaining literature, beautiful photographs and autobiographies. Most of the books were selected from book reviews that have appeared in *Fungi Magazine*, *Mushroom the Journal* and *The Mycophile* and were reviewed by Steve Trudell, Chair of the NAMA Literature Committee, as well as Britt Bunyard, Michael Beug, David Rose, Harley Barnhart and others. See http://namyco.org/education/refbooks.html.

Books for Young People in the Education section of the NAMA website has also been expanded and is divided into fiction and nonfiction listings. Please recommend them to parents, teachers and libraries. See http://namyco.org/education/k-12refs.html.

These lists are always works in progress and will be added to periodically.

Don't worry about old names for genera and species in older books. One can look up the new names on the MycoBank and Index Fungorum websites.

I suggest that you order some of these books for your mushroom club library and/or suggest them for purchase by your local public library. Some of the books are old classics but can sometimes be purchased from EBay, Amazon, Barnes and Noble and Powells. It is indeed comforting to have a personal collection of mushroom books that you can use for reference or just to reread.

Special thanks to David Rust who spent a long time adding the books to the NAMA website.

Sandy Sheine,
NAMA Education Committee Chair

GREAT OPPORTUNITY TO LEARN MORE ABOUT THE FLESHY FUNGI!

Fleshy Fungi of the Highlands Plateau with Dr. Andrew S. Methven, Eastern Illinois University
Aug. 4-16 in Highlands, North Carolina (at the Highlands Biological Station)

This course introduces students to the fleshy ascomycetes and basidiomycetes that occur in the southern Appalachian Mountains. Emphasis will be placed on the analysis of macro- and micro-morphological features to aid in species identification. Course activities will consist of a morning lecture on identification, ecology, and phylogeny of fleshy fungi, followed by field work in morning and laboratory identification in the afternoon. Students will assemble an impressive field collection showcasing the rich diversity of fleshy fungi found in the Highlands region.
For more information about course prerequisites, fees, housing, financial aid, and how to apply, visit www.highlandsbiological.org/summer-2014/.

Wanted! The Cat's tongue, *Pseudohydnum gelatinosum*

Dear Mushroom Seekers,

We are investigating the charismatic jelly fungus, *Pseudohydnum gelatinosum*, and realized very soon, that the California specimens have a different genetic signature than the specimens from British Columbia and from Europe. We also know that the Mexican specimens are different from the two other groups. But, we need your help to fill in the picture.

Questions we have:
Are there more than those three?
Where do these cat's tongues grow?
Does it matter whether it grows on a small twig or on top of a big log?
How can we recognize them without having to take out the genetic breathalyzer?

Keep your eyes open for this jelly, photograph it in the field, make notes where you found it, on what kind of wood, on small branches, on the top or the side of big logs, and write down the trees around it, dry it on a mushroom drier (yes, it turns to nothing but that is enough to work with), and send it to Berkeley [see address below].

We will of course let you know the results as soon as we have them!

Many thanks,

This project is brought to you by the curious mycologists:
Nhu Nguyen (University of Minnesota)
Roberto Garibay (National Autonomous University of Mexico)
Else Vellinga (University of California, Berkeley; ecvellinga@comcast.net)

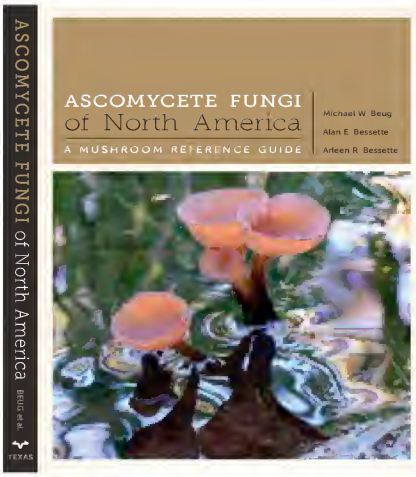
Send your *Pseudohydnum* collections to:
Else Vellinga
Bruns Lab
111 Koshland Hall #3102
UC Berkeley
Berkeley, CA 94720-3102
USA

Typical California fruitbody on small twigs

Mexican specimens on a trunk

Ascomycete Fungi of North America: A Mushroom Reference Guide Michael W. Beug, Alan E. Bessette and Arleen R. Bessette, Univeristy of Texas Press. The Corrie Herring Hooks Series No. 69. WWW.UTEXPRESS.COM. 800.2522.3026. QK823.A1B48 2014. ISBN 978-0-292-75452-2 $85.00

Note: The book is available from the publisher for a temporarily reduced price of $56.95. See https://utpress.utexas.edu/index.php/books/beuasc.



Review by David Malloch for June 2014 Issue of *Omphalina*

This new book on North American ascomycetes is a welcome surprise. Treating about 600 species of ascomycetes it compares favorably with any of the larger books on North American basidiomycetes. The authors have attempted to bridge the gap between beginners and more advanced enthusiasts by taking a fairly scholarly approach to their subject while at the same time presenting the material in a very user-friendly way. They have arranged the descriptions and illustrations in a format that is taxonomically up-to-date and not necessarily intuitive, but have provided entry to this system through a creative use of picture keys that anyone can easily follow.

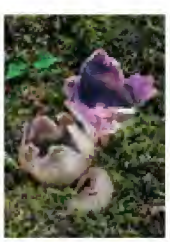
The book includes an introduction to ascomycetes accompanied by several photographs of microscopic characteristics, an identification key combining texts and pictures and a main section made up of descriptions and illustrations of individual species. The descriptive pages for each species include a simple description of macro- and microscopic features followed by a paragraph outlining habitat and geographic distribution. A final paragraph, labelled "Comments" contains a discussion of the correct name for the species and also a short overview

Picture Key to the Major Types of Included Ascomycetes

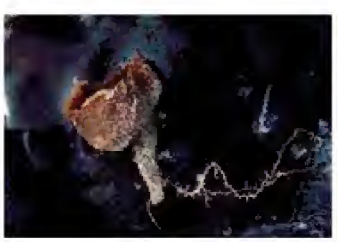
1a. Epigeous (above ground) Ascomycetes (see also 3b) 9
1b. Hypogeous (below ground) Ascomycetes 2

2a. Interior near or at maturity ± completely filled 5
2b. Interior hollow or of thick folds of mushroom tissue 3

3a. Interior hollow or folds of tissue, usually buried at maturity, spores forcibly discharged or not 4
3b. Interior hollow, opening to the surface at the top by splitting into rays, spores forcibly discharged, sometimes with an audible hiss



Sarcosphaera coronaria W, NE p. 250



Peziza ammophila A (sand dunes) p. 204

Chorioactis geaster Texas p. 139

Geopora pellita QC p. 89

Geopora arenicola NE + CO p. 89

Geopora sepulta E p. 90

DISTRIBUTION NOTES USED IN CAPTIONS: A = widespread; N, S, E, W = region in North America; M = mountains; C = coast; B = boreal; MW = Midwest; ? = uncertain; state and province abbreviations are standard except that NE = northeast, not Nebraska; MX = Mexico; WC = west coast; EC = east coast.

of similar species not treated by the book in detail. In some species there may also be some comments on edibili ty. The book ends with a glossary of mycological terms, a list of photo credits and an index for common names and one for scientific names.

The introductory section is brief, declaring a detailed discussion of ascomycete biology to be beyond the scope of the book. The photographs of microscopic features are clear but few in number and not likely to inspire a new generation of amateur microscopists. I suspect most readers will quickly skip over this section and get on with the excellent keys, descriptions and illustrations, which are the real strength of this unabashed field guide.

The main descriptive pages are nicely organized. The descriptions of both macro- and microscopic features are detailed enough to be useful to most users. The descriptions of microscopic structures are quite precise and will be useful to professional mycologists. Greater detail will only be found in technical journals. Writers of popular basidiomycete books could learn a lesson or two here. Under the heading "Occurrence" the authors outline what is known about the specific habitat of the species as well as its know geographic distribution. Readers in Newfoundland, as well as the rest of Canada, will find there are some inaccuracies regarding our country. For example, the location "northeastern North America" is often used when the authors really mean "northeastern USA and adjacent parts of Canada". *Mitrula paludosa* is said to occur in northeastern Canada, although it really is known mainly from southern Canada. *Neocudoniella radicella* is quoted as growing in "boreal forests across Canada and probably the northern portions of North America". I suspect that they really mean "northern portions of the USA".

The comments on each species are again far from condescending. Some readers will get more than they need here, while professionals and advanced amateurs will find a great deal of useful information. Discussions of nomenclature and taxonomy are carefully documented by current literature citations. Occasionally the descriptive pages have a short paragraph dealing with edibility. This seems a little inconsistent: with morels and similar fungi this makes sense but it can be spotty elsewhere. For example *Sarcoscypha austriaca* is declared to be "nonpoisonous but not recommended", but there is no comment on the edibility of *S. coccinea* on the following page. Some species of *Helvella* have comments on edibility while others do not.

The treatment of morels is right at the cutting edge of our knowledge and lays out, perhaps for the first time in such a book, the baffling array of known species. These species are hard to tell apart and are still mostly the territory of molecular biologists. However, most readers who have searched for morels will probably find the discussions fascinating. Fortunately, according to these authors, all morels are edible if well cooked, so taxonomy should not interfere with the delight of eating these little morsels.

There are several pages devoted to species of truffles and truffle-like fungi. These may be less useful to Newfoundlanders than to western Americans but are great to see. Most books simply ignore them. One practice here I do not condone is the use of so-called "*nomina nuda*", that is, names that have yet to be formally published according to agreed-upon procedures. In this book several unpublished names are introduced in the genus *Elaphomyces* with the comment "in preparation". Once these illegitimate names make their way into the wider literature they become

Gyromitra infula (Schaeffer: Fries) Quélet SADDLE-SHAPED FALSE MOREL

MACROSCOPIC FEATURES fruitbody consisting of a cap and stalk; cap 2.5–10 cm wide × 2–10 cm high, usually saddle-shaped or sometimes trilohate, margin incurved; upper surface wrinkled to convoluted or sometimes nearly smooth, moist when fresh, reddish brown to dark brown or sometimes yellow-brown, lacking distinct violet to lavender tints; lower surface paler, minutely velvety; interior hollow or chambered, flesh brittle; stalk 2–6 cm long × 2–2.5 cm thick, dry, hollow, finely granular, whitish to pinkish buff.
MICROSCOPIC FEATURES spores 18–23 × 7–10 µm, elliptic, smooth, with 2 large oil drops when mounted in water, uniseriate, nonapiculate, hyaline; asci 250–330 × 14–15 µm, 8-spored; paraphyses cylindrical, septate, forked, and enlarged apically.
OCCURRENCE solitary, scattered, or in groups on decaying wood or humus; summer and fall, also winter and spring in coastal California; widely distributed in North America; occasional to locally common.
EDIBILITY poisonous.
COMMENTS: This false morel is unusual for the genus *Gyromitra* in that it typically fruits in the summer and fall rather than spring, except for coastal California where it fruits in the spring. We have found versions of this species less than 1 cm tall in the spring. *Helvella infula* Schaeffer is a synonym. *Gyromitra ambigua* (P. Karsten) Harmaja is very similar and also fruits in the summer and fall, but its cap and stalk have distinct violet to lavender tints, with the cap a dark red-brown, nearly chestnut colored, and its spores are larger (21–30 × 7–12 µm) and indistinctly apiculate (Harmaja 1969a). Some authors consider *Gyromitra ambigua* and *Gyromitra infula* to be synonyms, but the combination of fruiting body color and spore characteristics appear to be consistent diagnostic features (Abbott and Currah 1997). *Sphaeronaemella helvellae*

Gyromitra infula

(P. Karsten) P. Karsten grows on the living fruitbodies of *Gyromitra infula* and *Gyromitra ambigua*. *Sphaeronaemella helvellae* gives *Gyromitra* fruitbodies a velvety, withered appearance but *Gyromitra* ascospores are always present, indicating that the infection does not occur until host maturity.

Sphaeronaemella helvellae fruitbodies are superficial to semi-immersed in the spore-bearing area of the host. They are composed of perithecia that measure 0.09–0.25 mm in diameter, are nearly spherical to ovoid, hald, smooth, and have a long neck through which the spores emerge. They are colored bright yellow-orange and are densely gregarious. Their spores are 8–10.5 × 3–4.5 µm, unilaterally flattened-elliptic in side view, elliptic in face view, smooth, hyaline, and yellowish in mass.

PEZIZOMYCETES 150

confusing. Should someone publish names for these species before the ones used here are published we will have yet another set of useless names to deal with. While *nomina nuda* can be sorted out by professionals, they can become a nightmare for amateurs and non-specialists.

The final sections of the book are well thought out. The glossary of terms is thorough, as is the bibliography. The authors are to be congratulated on their efforts to be as up-to-date as possible. The index of common and scientific names are thorough. The scientific index even includes some plant species although not all. I would have preferred to see the scientific index to be alphabetized by species as well as genus, since many of us have yet to adapt to the latest generic names and may have difficulty finding the entry for a species we are familiar with.

In summary, despite a few small quibbles, I like this book very much. It is a landmark publication on North American ascomycetes. The authors understate its importance by citing Seaver's monumental *North American Cup Fungi* in its 1978 reprint rather than pointing out that these were originally published in 1942 and 1951. We have waited a long time for such a book. It may contain a small percentage of the ascomycetes we are likely to find and is mainly restricted to the large and more conspicuous species but is nevertheless a wonderful aid to identification. I enthusiastically recommend this book to amateurs and professionals alike, and congratulate its authors on a job very well done.

Ascomycete Fungi of North America

Review by John Plischke

Finally, a North American Ascomycete book we can all use as a definitive reference guide. *Ascomycete Fungi of North America* by Michael Beug, Alan Bessette and Arleen Bessette is a massive work by three of the most productive authors the country has ever known.

The book is 1 ½ inches thick, 7 ¼ inches wide, and 10 ¼ inches tall. It encompasses 488 pages of color photographs and detailed descriptions. Except for the keys, some of the photos are a fourth of a page in size, although most are a full half page. Wonderful! The photo credits are 6 pages in length and include too many photographers to mention them all. Among those you may recognize are Harley Barnhart, Kit Scates, Alan & Arleen Bessette, Michael Beug, Adolf & Oluna Ceska, Todd Elliott, Renee Lebeuf, Walt Sturgeon, Hank Mashburn, Bill Roody, and John Plischke III. I am leaving off such notables as James Trappe, Noah Siegel, Michael Wood, Steve Trudell, Raymond McNeil, Emily Johnson, George Barron, Dianna Smith and many others, too numerous to mention. The photographs are outstanding and to my mind essential in making the book as good as it is. They were also all taken in North America. My son, John III, has thousands of books, papers, articles, etc., that he has collected over the years, but to me a good picture is worth a thousand words. Most of these pictures are very good and very descriptive. In most cases I can tell what the mushroom is from the picture.

In Peter Thompson's book, *Ascomycetes in Colour: Found and Photographed in Mainland Britain*, the photos were taken by Peter in England and sells for $74 in paperback. The Swiss book, *Fungi of Switzerland Vol 1*, was published in 1984, is out of date and currently sells for $174. It includes drawings of the spores. Two asco books published in the US in 1942 and 1961 have black and white photos, *The North American cup-fungi (operculates)* and *The North American cup-fungi (inoperculates)*. This is the first comprehensive book on ascos published in over 60+ years in the United States. In my opinion, it ought to be in your library.

Chapter 1 includes 28 photos largely of spores. I have done some work with microscopes and find the pictures worthy of the book. Chapter 2 is a key to the included Ascomycetes. It is a different kind of key than you are used to seeing in mycological books. It is a key that includes 9 to 12 pictures on a page on the various Ascos totaling

542 pictures, some of the pictures include descriptive comments. It consists of 57 pages, as I said it is a different kind of key which is done largely with pictures. It is a very refreshing way to present a key.

71a. (694) Underside more or less glabrous
71b. Underside distinctly clothed in hairs
Arachnopeziza aurelia E, MW p. 356
Arachnopeziza aurelia E, MW p. 356
Arachnopeziza aurata NE p. 356
Helicoma bulbosum WC • EC p. 360
Helicoma sulphureum N p. 360

Chapter 3 has Hypogeous Ascos, the truffles. It is 46 pages long and 26 photos are included. Chapter 4 Pezizomycetes is 155 pages and has 127 pictures. It includes such fungi as: Morchellacacea, Pezizaceae, *Gyomitra*, *Helvella*, *Peziza*, *Verpa*, and others. Mind you, all the chapters except chapter 2 have pictures that are largely ½ page in size. Chapter 5 Sordariomycetes is 79 pages long and includes 62 pictures. It includes such mushrooms as: *Akanthomyces*, *Cordyceps*, *Hypocrea*, *Xylaria*, and others. Chapter 5 Sordariomycetes is 79 pages long and includes 62 pictures. Chapter 6 Leotiomycetes has 61 pages and 51 pictures. It includes such mushrooms as: *Leotia*, *Bisporella*, and others. Chapters 7 through 12 have 22 pages and 13 pictures. They include such Ascomycetes as Eurotiomycetes, Geoglossaceae, Neolectomycetes, Orbiliomycetes, Dothideomycetes, and Taphrinomycotina.

So far I have talked about the pictures in the book and they are outstanding, however, each chapter starts with a very interesting narrative about the mushrooms described. Each picture has an accompanying description and some have an extra comment. The description of each species includes Macroscopic Features, Microscopic Features, Occurrence, and Comments. The Microscopic Features includes detailed spore description. Occurrence includes habitat and location in North America. Some species include Edibility. We are fortunate to have Michael Beug, NAMA's Toxicology Chair, as one of the authors. Obviously a great deal of time was taken to consult with other experts on the various Ascomycetes.

There is an index on Common Names and one on Scientific Names and a Reference Section. Also included is a comprehensive Glossary.

I know there were two mistakes made in the book. Hank Mashburn's name is spelled wrong in the photo credits. On page 32, *Morchella angusticeps* refers to page 36 and page 36 does not have any morels. I talked to Michael Beug about this and he told me about another spelling mistake of Christian Schwarz's name. Michael told me how careful he was and how two editors from University of Texas Press and all the other people who reviewed before printing the book also missed these mistakes. I told him I didn't think this was a big thing, I am sure it probably is to Christian.

I talked to Michael to some degree about the names of various mushrooms. Do you use the name that is the latest used? Or do you use one that is being used at the current time? Or do you use an old name? Those who review books that harp about those problems ought to write a book themselves. Changes in the world of fungi are happening as you are reading this review. I am not going to address those changes.

I think the University of Texas Press says it best when they say, "With 843 color photographs and more than 600 described species, as well as an easy-to-use color key to aid visual identification, this is the most complete guide ever published to North American Ascomycetes, which includes morels and truffles." This is going to be the go to book for Ascomycetes for many years to come. I highly recommend this book for your collection of books on fungi. It is very useful for anyone from the advanced to the beginning mushroomer.

Review of *Ascomycete Fungi of North America*

by Roy Watling

North America has a long tradition of producing excellently illustrated manuals on larger fungi and there is a new one maintaining that tradition, and equally as good, available on the book stands. Although such books cover fungi not found in the UK many of our familiar and less familiar larger ascomycetes are illustrated between the covers of this book, written by well known experts in the field. It is good to see good coloured illustrations of British fungi but in addition the book allows the reader to see, experience, the full concept of a genus which perhaps is represented only by a single member in the UK mycota or at most a handful of species. How nice it is to-day-dream with such a book at hand and maybe, just maybe, you will be the first to recognize in Scotland at species, which at the moment is thought to be only N. American species!

The book starts with a beautifully illustrated introduction to basically all the ascomycetes, although the book itself only really deals with the larger forms and a spattering of the more conspicuous micro-forms. The introduction runs smoothly into an equally exotically illustrated key to those ascomycetes included in the book, with a small account on how to use the book's key, which is quite unique and then follows a portrait gallery of the major types included. It is nice to see the recent molecular studies and modern interpretations being incorporated where necessary throughout the book.

The first chapter (60 pgs.) is dedicated to the truffles, a group, which N. America is host to many, many species and it's pleasing to see some of these hypogeous fungi in all their intricate detail. The next chapters covered the elf cups, eye-lash fungi and their like – which makes up the largest number of entries (154 pgs.), wart fungi, vegetable caterpillars and their relatives, (98 pgs.), jelly babies, the bulgar and some micro-relatives, rarely seen in the finest glory even with a hand-lens (61 pgs.), a single entry for the smelly *Onegena corvina* on bird corpses and feathers and earth tongues separated out as a family unlike the other groupings dealt with in the book, but little did the authors know that within days of the print drying this family would be made into an order in parallel to the other divisions used in the book! The next 4 chapters (final 13 pgs.) deal with fungi which are passed over by most macromycologists but none-the-less can be very prominent as well as bizarre. They include *Neolecta irregularis*, *Apiosporina morbosa*, *Sciorias spongiosa* and *Taphrina occidentalis*, the last representing a whole group of parasitic fungi, which are reduced in structure yet induce their host to swell and contort so offering a larger surface area on which the fungus can form their spores. The authors illustrate *Taphrina occidentalis* on *Alnus rubra*; in Scotland we have *T. tosquinetii* and *T. amentorum*, on leaves and catkins respectively on the related host *Alnus glutinosa*.

There is an excellent glossary of terms which eases the pain some mycologists might experience and a wonderfully complete list of references so the more adventurous can seek further reading. An added bonus before the photographic credits and index is a list of common names which are most important these days when politicians and conservationists want to legislate but need to get their heads around fungus names. But one will find here several differences between those used in the UK and those used across the Atlantic, e.g Yellow Sap Cup and Yellowing Cup for *Peziza succosa*, Recurved Cup and Layered Cup for *Peziza varia* and Bladder Cup and Blistered Cup for *Peziza vesiculosa* to name but a few from a long list. However it emphasises the need still to use Latin names for communication between professionals. The illustrations scavenged from a whole series of photographers are excellent and show their subjects in all 'Sunday best'. The authors have amassed an impressive portrait gallery.

I have few minor quibbles such as it would have been nice to see the yellow juice exuding from *Peziza succosa*,

APPROXIMATELY 75 PERCENT OF all fungi that have been described to date belong to the phylum Ascomycota. They are usually referred to as Ascomycetes and are commonly found and collected by mushroom enthusiasts. Ascomycetes exhibit a remarkable range of biodiversity, are beautiful and visually complex, and some, including morels and truffles, are highly prized for their edibility. Many play significant roles in plant ecology because of the mycorrhizal associations that they form. Thus it is remarkable that no book dedicated to describing and illustrating the North American Ascomycetes has been published in over sixty years.

Filling the gap between technical publications and the limited representation of Ascomycetes in general mushroom field guides, *Ascomycete Fungi of North America* is a scientifically accurate work dedicated to this significant group of fungi. Because it is impossible to describe and illustrate the tens of thousands of species that occur in North America, the authors focus on species found in the continental United States and Canada that are large enough to be readily noticeable to mycologists, naturalists, photographers, and mushroom hunters. They provide more than 850 color photographs and more than 600 described species, many of which are illustrated in color for the first time. While emphasizing macroscopic field identification characteristics for a general audience, the authors also include microscopic and other advanced information useful to students and professional mycologists. In addition, a color

"This is an exciting work and one that is very much needed. There is no [other] contemporary general book on Ascomycetes of North America. And there is no book for North America with good photographs. This book will be welcomed by amateur mycologists worldwide and will be useful for professional mycologists as well. It will definitely increase interest in Ascomycetes because it will now be possible to identify many species."

—Rosalind Lowen, Ph.D., author of more than twenty articles on Ascomycetes and discoverer of several new species

MICHAEL W. BEUG is a mycologist, environmental chemist, and Professor Emeritus at Evergreen State College. He is on the editorial board of *Fungi* magazine, and his mushroom photographs have appeared in over thirty books and articles. He is coauthor of MatchMaker, a free online mushroom identification program covering over 4,000 taxa of fungi. He lives in Husum, Washington.

ALAN E. BESSETTE is a mycologist and distinguished Professor Emeritus of Biology from Utica College of Syracuse University. He has published numerous professional papers in the field of mycology and has authored more than twenty books. He lives in Saint Marys, Georgia.

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NATURAL HISTORY: MUSHROOMS, FIELD GUIDES

but things like this are few and really do not detract from the publication. This is a glorious book to handle but use two hands because it is heavy, not a text for taking into the field. But you can savour it at home! It is aesthetically pleasing as well as being of great mycological use. I would recommend it to British mycologists as they will see their own taxa wonderfully illustrated as well being able to expand their knowledge of a genus by seeing exquisite pictures. A good buy.

Note: The review by Roy Watling is reprinted from the Scottish fungi website sites.google.com/site/scottishfungi/).

NEMF FORAY: Thursday, August 7 to Sunday, August 10, 2014

The Maine Mycological Association will host the 2014 NEMF foray at Bowdoin College in Brunswick, Maine.

Bowdoin College is a beautiful and historical liberal arts college located in the mid-coast Maine town of Bruns wick. It is easily reached by Interstates 95 and 295, and lies about one and a quarter hours from the New Hamp shire border. It is within easy range of a number of different habitats including the Maine coast, central Maine woodlands and the foothills of the Appalachians.

Dr. Seanna Annis, mycologist and plant pathologist at the University of Maine at Orono, will be the host mycologist. Presenters will include Renée Lebeuf, Raymond Archambeault, Greg Marley and Michaeline Mulvey.

The foray is named in honor of the late mushroom guru Samuel Ristich.

Those interested in selling mushroom-related items at the foray should contact Anne Rugh. We anticipate having volunteers available to oversee the exhibition area to add security and assist with sales when vendors aren't present. The charge to vendors will be $10.00 per table.

The Amtrak Downeaster and Concord Coach Lines serve Brunswick, and their station is just one block from the College. There will be a free shuttle service from the station to the dormitories. Please contact Delmar Small with questions about the foray to be placed on a list to be notified when registration opens, or to schedule shuttle service.

North American Mycological Association
c/o Ann Bornstein
61 Devon Court
Watsonville, CA 95076

Change Service Requested

Newsletter of the North American Mycological Association
THE MYCOPHILE

Photo by Hugh Urban. This first appeared in the April 2014 installment of the Ohio Mushroom Society's online web pages created by Alan McClelland.

Maya Urban-Jesser is proudly displaying one of the many morels she helped her father (Hugh Urban) and mother (Nancy Jesser) find in Columbus, OH in April, 2012. Maya was only 15 months old at the time but already a great mushroom spotter, and she continues to hunt at age 3 today.